OKLAHOMA AGRICULTURAL STATISTICS SERVICE

Sampling Methods, Data Collection and Estimation

Glenda Shepler, Deputy State Statistician

Oklahoma Agricultural Statistics Service produces hundreds of estimates every year pertaining to Oklahoma's agricultural economy. In order to produce these estimates, there are three major steps that are undertaken. These steps include selecting a sample, collecting the data for that sample, and then setting an estimate.

The first step is to select a sample. It is possible to sample only a small portion of the total population primarily due to cost efficiencies. Samples are selected from producers who have the commodity for which we are going to set an estimate. Probability and non-probability sampling is used to select a specific sample that is representative of the entire population. Some samples are selected from a list of producers, called a list sample, while other samples are selected based on a particular area of land and are referred to as area samples. Samples may cover a wide range of commodities or may be commodity specific. Larger producers tend to be sampled more often due to the impact their operations have on the entire estimate. We are continually searching for improved procedures and efficiencies for compiling these reports.

The second step of our program involves the data collection activities. Surveys are conducted by mail, telephone and personal interviews to collect the data necessary to set the estimates. We also conduct an objective yield survey where a sample is plotted in wheat fields and monthly measurements and counts are made to help determine yield. The major sources of reliable information for crop and livestock reports are those who know the most--producers, hatchery men, livestock feeders, slaughterhouse managers, grain elevator operators--the extensive users of the final estimates. Their cooperation is absolutely essential for a workable and useful crop, livestock, and price estimating program.

The third step in the process is to set the estimate. Data is summed to the State level and an estimate for Oklahoma is made after thorough analysis of the data. Comparisons are often made to previous year, previous quarter, or previous month data. Some estimates are also made at the district and county level. However, no estimates are ever published that would reveal an individual operation. All of our survey data is strictly confidential.

Most of the data used to calculate these statistics published by the Oklahoma Agricultural Statistics Service are collected by a part time staff of office and field enumerators. They are the heart of our data collection activities. This enumerator staff is employed through a cooperative agreement with the National Association of State Departments of Agriculture (NASDA). The National Agricultural Statistics Service is recognized as one of the premier statistical organizations in the world. That reputation rests in large part on the efforts of enumerators in every state of the Union who are the primary contact between the producers and our office.

Our Oklahoma enumerators not only work on data collection for Oklahoma, but also help out other States during time periods when they are short on enumerators. We are very proud of our 68 enumerators at Oklahoma Ag Statistics who have a combined average of over seven years of employment. These are people who enjoy their job and enjoy visiting with the producers of our State. If you are a producer, the next time you are called or visited in the field by one of our enumerators, we hope you can recognize one of the names below.

Oklahoma NASDA Enumerators

Peggy G. Fifer Ruth Fletcher Lisa Kay Forsmark Beth Frantz Cherri L. Gable Toni Gable Gladys Green Patt Gugino Beverly Hall Tanya Hood **Bob Hughes** Billie Lou Hunter Barbara Hutcheson Fern Job Connie F. Johnson Glenneth Jones

Luther E. Jones

Allene Lisle Patty L. Long Carol Beth Mahoney Jan E. Marburger Lynette A. Martin Karen Mattocks **Ronald Mays** Royce G. Meacham Colleen Montgomery Sheila Moore **Brian Murray** Carol C. Nickels Mary Jane Parkey Pat Pendley Joanna Peschl Karen A. Petty Jerry M. Proctor

Jerri Rector Robyn Reust Byron L. Shook Anne H. Smallwood Carla J. Stanley E. Louise Stradley Sharon L. Stuber Betty L. Tice Donald Troyer Marianne Turner Sharon S. Vaughn Delores M. Waggie Nancy Walker Shirley J. Waters Karen White Lodi Woolman Rosalie Wilczek